Edexcel International GCSE Physics 4PH1 Learning Plan

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| **Unit: 4 Energy Resources and Energy Transfer** | **Chapter: 15. Thermal Energy** | **Hours: 5** |
| Content coverage | Learning outcomes | Resources | Assessment |
| Section 4: Energy resources and Energy transfersa) Unitsb) Energy transfers | **4.6** describe how thermal energy transfer may take place by conduction, convection and radiation**4.7** explain the role of convection in everyday phenomena  **4.8** explain how emission and absorption of radiation are related to surface and temperature **4.9** *practical: investigate thermal energy transfer by conduction, convection and radiation* **4.10** explain ways of reducing unwanted energy transfer, such as insulation  | Video and Powerpoint:2.5 Thermal Processes Textbook pages:Page 139 – ConductionPage 140 – **Practical** – *Investigate how well different metals conduct heat*Page 140 – ConvectionPage 141 – **Practical** – *Investigate convection currents in water*Page 142 – RadiationPage 144 – **Practical** – *Investigate how well different surfaces radiate heat*Page 145 – Energy efficient housesPage 147 – Insulating people and animals | Page 148 – 149Questions (1) to (8)Chapter 15 Textbook Answers (PDF)Chapter 15 - exam question - pdfChapter 15 - exam question mark scheme – pdfChapter 15 - Talking paper video  |

Videos – [www.igcsesciencecourses.com](http://www.igcsesciencecourses.com)

Textbook Ref: Edexcel International GCSE (9-1) Physics Student Book - Pearson (Arnold, Johnson, Woolley))